Remarks

Upon entry of the foregoing amendment, Claims 21-92 are pending in the application, with claims 21, 35, 49, 63, 77, 91, and 92 being the independent claims. Claims 1-20 previously were cancelled without prejudice to or disclaimer of the subject matter recited therein. Claims 21, 35, 49, 63, and 77 are sought to be amended. New claims 91 and 92 are sought to be added. These amendments and new claims should be entered after final because they merely clarify implicit features, do not require further search or consideration by the Examiner, and they place the claims in better condition for allowance and/or reduce the issues for appeal. Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Statement of Substance of Examiner Interview

Applicants' representatives gratefully acknowledge the courtesies extended to them by the Examiner in granting a telephone interview on August 18, 2008. In that interview, the Examiner clarified his comments regarding claim 21 and the teachings of Unger and Krellenstein. Applicants' representatives also discussed distinctions between claim 21 and the applied references. Applicants' representatives additionally discussed with the Examiner the necessary claim language to convey the aforementioned distinction between the applied references and the present invention. No agreement was reached on specific claim language. The substance of the discussion and arguments in the telephone interview is included in the present remarks.

Rejections under 35 U.S.C. § 103

On page 2 of the Office Action claims 21-90 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 5,721,910 to Unger et al. ("Unger") in view of U.S. Patent No. 5,924,090 to Krellenstein ("Krellenstein"). The rejection of claims 21-90 under 35 U.S.C. 103(a) respectfully is traversed for the reasons stated below.

Claims 21, 35, 49, 63 and 77

Independent claims 21, 35, 49, 63 and 77 recite features not taught or suggested by the applied references. For example, claim 21 as amended herein recites (emphasis added):

> searching a first group of documents according to one or more search functions to output a second group of documents, *wherein the second group of documents is a subset of the first group of documents*;
> wherein the search functions comprise at least one of the following:
> morphological functions; lexical functions;
> syntactic functions;
> semantic functions;
> discourse functions;
> pragmatic functions;
> full text functions;
> boolean functions; and
> clustering functions;
> analyzing a third group of documents according to one or more analytical functions to output a fourth group of documents, *wherein the fourth group of documents is a subset of the third group of documents*;
> wherein the analytical functions comprise at least one of mapping functions, citation functions, plot lineage functions, and reporting functions; and
> *selectively iterating at least one of the searching step and the analyzing step, wherein each iteration of the searching step or the analyzing step is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration*;
> wherein said selectively iterating step includes:
> performing an additional iteration of the searching step using as input the second group of documents, to output a fifth group of documents, *wherein*

> *the fifth group of documents is a subset of the second group of documents*; and
> performing an additional iteration of the analyzing step using as input the fourth group of documents, to output a sixth group of documents, *wherein the sixth group of documents is a subset of the fourth group of documents.*

The above-recited iterative search and analysis process of claim 21 is described in Applicants' specification at least at, for example, paragraphs [0064]-[0067], [0080]-[0082], [0085]-[0097], [0099], and FIGs. 4, 6, and 7. The instant specification discloses that a goal of a search process is to identify a group of documents which satisfy search and/or analysis criteria. Searching a first group of documents results in a second group of documents that satisfy the search criteria, wherein the second group of documents includes documents that were identified during the search of the first group of documents (i.e., the second group of documents is a subset of the first group of documents).

On page 3 of the Office Action and during the aforementioned telephonic interview, the Examiner asserts that "Unger teaches the step of further searching one or more categories (i.e., "second group [of documents]") to identify a subset of documents" and "the set [step] of analyzed patents and/or technical documents (i.e., "fourth group [of documents]") may then be used to identify trends (i.e., analyzing)" in lines 25-55 of column 6.

As discussed during the aforementioned telephonic interview, Applicants respectfully submit that the Examiner has mischaracterized the cited portions of Unger. For example, lines 35-51 of column 6 of Unger read:

> "Stage V and the *Parsed data from Stage III* feed into Stage VI. *Stage VI represents a high-level overview* of a business, scientific or technical entity or specialty and provides a method for grasping the pattern of research effort represented by a collection of patents or technical documents. *These patterns are obscure at Levels I and II, and can only be*

> *clearly observed after pursuing the methods of this invention to achieve the higher level abstraction represented by Stages III through VI.*
>
> The dashed line from Stage V to Stage I represents the fact that *the data stored in the data base, and all associated analyses of Stages II [through] VI may be used to identify patents and/or technical documents* of particular interest for a particular application. The *patent numbers* for this set of patents may then be used as *unique identifiers* to *electronically link to full text sources of patents* and display the full text and associated graphic images of the set of patents. The electronic full text sources of these patents may be on a CD-ROM, a LAN or on the Internet. Unique Identifiers may similarly be used to link to sources of full-text technical or scientific documents." (emphasis added)

Stages I-VI are depicted in FIG. 1 of Unger and defined in line 62 of column 4 through line 2 of column 5 which read:

> "Stages I and II represent well known methods of dealing with collections of full-text patents and semi-organized analyses of those collections of patents *in the form of spreadsheets or small databases. Stage III through VI represent the subject of this invention whereby increasingly abstract concepts and overviews can be derived from a collection of electronically available patent abstracts, and/or technical documents*, technical indexing, and patent claims." (emphasis added)

Thus, Unger's analysis is based on stage III - VI "parsed data" and "increasingly abstract concepts and overviews" "derived from a collection of electronically available patent abstracts, and/or technical documents" and excludes Stage I and II "collections of full-text patents" documents (Unger, col. 4, ln. 62 to col. 5, ln. 2 and col. 5, ln. 35).

Claim 21 recites selectively initiating at least one iteration of a search and at least one iteration of analysis, wherein each iteration of the search or the analysis is performed using as the input one of the second group of documents, the fourth group of documents, or the output of a previous iteration. In contrast, Unger teaches that analysis of groups of documents such as the patent and technical documents comprising Stage I is *not* performed because analysis "patterns are obscure at Levels I and II, and can only be

clearly observed after pursuing the methods of this invention to achieve the higher level abstraction represented by Stages III through VI" (Unger, col. 6, lns. 39-43).

Unger thus teaches away from an iterative method including iterative searching and/or analyzing of an input group of documents in order to produce an output group of documents, as recited in claim 21.

Moreover, as Unger teaches away from what is recited in claim 21 of the present application, Applicants submit that Unger cannot be used to establish a prima facie case of obviousness for such feature. See, M.P.E.P. §§ 2141.02 and 2145(X)(D)(2); *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988); *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 230 U.S.P.Q. 416 (Fed. Cir. 1986) (stating a reference should be considered as a whole, and portions arguing against or teaching away from the claims much be considered); *Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F.2d 720, 16 U.S.P.Q.2d 1933 (Fed. Cir. 1990) (stating the closest prior art should not be used because the closest prior art "would likely discourage the art worker from attempting the substitution suggested by the [inventor/patentee]."); *In re Gurley*, 27 F.3d 551, 31 U.S.P.Q.3d 1130 (Fed. Cir. 1994) ("A reference may be said to teach away when a person of ordinary skill, upon reading the reference, ...would be led in a direction divergent from the path that was taken by the applicant."); *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997) (stating a prima facie case of obviousness may be rebutted by showing that the art, in any material respect, teaches away from the claimed invention).

There is a fundamental and significant difference between an iterative method using as input "a group of documents" as disclosed in the instant specification and

recited in the claims, and a method using as input "abstract concepts and overviews" as taught by Unger. The input into Unger's analysis is based on abstractions and overviews of full text patent files and technical documents, not groups of documents per se, as recited in claim 21.

Unger fails to teach or suggest analyzing an input group of *documents* to output another group of *documents*, wherein the output group of documents is a subset of the input group of documents, as recited in claim 21. Rather, Unger's analysis is based on stage III data parsed from documents and abstract and overview stage IV-V data stored in a database linked by unique identifiers (patent numbers) to a group of documents stored in a separate data base (e.g., CD-ROM, LAN or Internet) (Unger, col. 3, lns. 55-59, col. 6, lns. 25-55, FIG. 1). In Unger's system, the unique identifiers (patent numbers) are not a search or analysis criteria applied to a group of documents, but are merely used to electronically link parsed data and abstractions of data (Stages III-VI) to patent and technical documents (Stage I) (Unger, col. 6, lns. 25-55 and FIG. 1). Further, Unger's unique identifiers are merely data identified after parsing patent documents and are not a group of documents, as recited in claim 21.

In summary, the inputs into Unger's analysis are "increasingly abstract concepts and overviews" "derived from a collection of ... patent abstracts" electronically linked to full text source patent files located "in a stack of paper copies or in an electronic collection on a CD-ROM, in a database, on a LAN or on the Internet" (Unger, col. 4, ln. 62 - col. 5, ln. 2 and col. 5, lns. 3-16). In contrast, claim 21 recites selectively performing iterative analysis on a group of *documents* resulting from a prior search or analysis iteration, to produce a group of documents.

The Examiner acknowledges that Unger does not teach selectively performing an additional iteration of the searching using the fourth group of documents as input, to output a fifth group of documents, as recited in claim 21 (see pages 3 and 4 of the Office Action). Krellenstein is cited for allegedly teaching this feature.

Applicants submit that Krellenstein fails to remedy this deficiency of Unger. Specifically, Applicants submit that Krellenstein fails to disclose or suggest at least the above-discussed features of claim 21 relating to performing an iteration of analyzing a group of documents as input, to output a group of documents, wherein the output group of documents are a subset of the input group of documents.

Krellenstein does not teach or suggest performing an iterative method of analysis using a group of documents as input, in order to output another group of documents which are a subset of the input group of documents, as recited in claim 21. Rather, Krellenstein is limited to refining search result lists by executing successive searches on a previous search result list to produce a refined set of the records. Krellenstein clearly does not selectively iterate at least one searching and at least one of analyzing of a group of documents, wherein each iteration of the searching or the analyzing is performed using as the input one of a second group of documents resulting from a previous search, a group of documents resulting from a prior analysis, or the output of a previous iteration, as recited in claim 21. Krellenstein contains no teaching or suggestion of selectively iterating an analysis of a group of documents according to one or more analytical functions to output a group of documents which are a subset of the input group of documents, as recited in claim 21.

Thus, the allegedly obvious combination of Unger and Krellenstein does not teach or suggest each and every limitation of claim 21. Krellenstein fails to add anything to Unger that would have made obvious the claimed invention.

For at least these reasons, independent claim 21 is allowable over the applied references. Reconsideration and allowance of claim 21 is respectfully requested.

On page 6 of the Office Action, claims 35-90 were rejected based on the same rationale applied to claims 21-34. Claims 35-90 recite methods, systems, devices, computer program products, and computer implemented devices with distinguishing features similar to claims 21-34, and thus are patentable over the applied references for similar reasons as discussed above with regards to claim 21. Claims 35, 49, 63 and 77 as amended herein recite similar distinguishing features as claim 21. For example, independent claim 35 recites a method comprising, *inter alia*:

> selectively iterating at least one of the searching step and the analyzing step, wherein each iteration of the searching step or the analyzing step is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration;
> wherein said selectively iterating step includes:
> performing an additional iteration of the searching step using as input the second group of documents, to output a fifth group of documents, wherein the fifth group of documents is a subset of the second group of documents; and
> performing an additional iteration of the analyzing step using as input the fourth group of documents, to output a sixth group of documents, wherein the sixth group of documents is a subset of the fourth group of documents.

Amended claims 49, 63 and 77 recite similar features of:

> selectively iterating at least one of the searching step and the analyzing step, wherein each iteration of the searching step or the analyzing step is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration;
> wherein said selectively iterating step includes:

performing an additional iteration of the searching step using as input the second group of documents, to output a fifth group of documents, wherein the fifth group of documents is a subset of the second group of documents; and
performing an additional iteration of the analyzing step using as input the fourth group of documents, to output a sixth group of documents, wherein the sixth group of documents is a subset of the fourth group of documents.

Thus, for at least the reasons stated above with regards to claim 21, Applicants submit that claims 35, 49, 63, and 77are patentable over the applied references, and request that the rejection of claims 35, 49, 63, and 77 be reconsidered and withdrawn. As discussed above with regards to claim 21, Unger and Krellenstein, taken singly or in the allegedly obvious combination do not teach or suggest the above-recited features of claims 35, 49, 63, and 77.

Claims 22-34, 36-48, 50-62, 64-76 and 78-90 depend from claims 21, 35, 49, 63 and 77, respectively, and are believed allowable for the same reasons. See, *In Re Fine*, 837 F.2d 1071 (Fed. Cir. 1988), and M.P.E.P. § 2143.03. Moreover, each of these dependent claims 22-34, 36-48, 50-62, 64-76 and 78-90 recites additional features in combination with the features of its respective base claim and is believed allowable in its own right. Individual consideration of the dependent claims respectfully is requested. For example, claims 24-26, 38-40, 52-54, 66-68, and 80-82 recite additional features that distinguish over the applied references. These claims recite, using respective language performing a relevancy visualization analysis of one of the first group and the third group to identify how documents contained therein are inter-related with respect to key terms, wherein relevancy visualization analysis operates according to a rule book, and wherein the rule book comprises patent specific rules. Unger and Krellenstein are silent on the capability of performing a relevancy visualization analysis on a group of

documents to identify how documents within the group are inter-related with respect to key terms, wherein the relevancy visualization analysis operates according to a rule book comprising patent specific rules. On pages 4 and 5 of the Office Action, the Examiner asserts that the above-recited features of claims 24-26 are disclosed in Unger in lines 5-25 of column 7 and lines 15-35 of column 5 which read:

> "Each category has a unique set of characteristic terms associated with it. For each category a predefined set of search parameters would be created comprised of technical search terms such as
>
> U.S. Patent Classification
> International Patent Classification
> Technical Indexing Terms
> Chemical Structures
> Chemical Formulas
> Registry Numbers
> Chemical Codes
> Polymer Codes
> Database-Specific Codes and Descriptors
> Title Text
> Abstract Text
> Full Text of original documents and/or patents"
>
> And
>
> "Stages III through VI represent the database design of this invention. Stage III represents the electronic capture of Patent Abstracts, and/or technical documents and the parsing of the complex, multi-entity data fields which usually accompany these Patent Abstracts, such as the Patent Inventors, Patent Numbers, Patent Companies (Assignees), Patent Legal Status and Patent Priority data. For example, the Parsed Patent Number Record would capture a separate record for each patent equivalent including the patent number, publication date and patent status. Similar levels of detail are captured for each parsed field. Also represented at this level is the electronic capture of the U.S. Claims and the European Claims (granted patent and published applications) and associated information such as inventor and assignee. All of these fields are electronically linked and may be electronically displayed as a set of information pertinent to one particular patent and/or patent family on a computerized graphical interface. Technical Documents may be similarly captured and the associated complex fields parsed to yield normalized data."

Applicants have examined the sections of Unger cited by the Examiner, other sections of Unger, and Krellenstein, and are unable to identify a disclosure of performing a relevancy visualization analysis of one of the first group and the third group to identify how documents contained therein are inter-related with respect to key terms, wherein relevancy visualization analysis operates according to a rule book, and wherein the rule book comprises patent specific rules, as recited in claims 24-26, 38-40, 52-54, 66-68, and 80-82. Thus Unger and Krellenstein, alone or in the allegedly obvious combination, lack the additional relevancy visualization analysis features recited in claims 24-26, 38-40, 52-54, 66-68, and 80-82.

Applicants have added new claims 91 and 92. Support for the new claims and amendments is found at least at, for example, paragraphs [0064]-[0067], [0080]-[0082], [0085]-[0097], [0099], and FIGs. 4, 6, and 7.

Claim 91 recites a system for organizing and analyzing information comprising a means for searching a first group of documents according to one or more search functions to output a second group of documents, wherein the second group of documents is a subset of the first group of documents; a means for analyzing a third group of documents according to one or more selected analytical functions to output a fourth group of documents, wherein the fourth group of documents is a subset of the third group of documents; a means for performing a selective iteration of at least one of the searching and the analyzing, wherein each iteration of the searching or the analyzing is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration; a means for performing an additional iteration of the searching using as input the second group of documents, to output a fifth

group of documents, wherein the fifth group of documents is a subset of the second group of documents; and a means for performing an additional iteration of the analyzing using as input the fourth group of documents, to output a sixth group of documents, wherein the sixth group of documents is a subset of the fourth group of documents.

Claim 92 recites a method for enabling a user to organize and analyze information, comprising *inter alia*: initiating a computerized search of a first group of documents according to one or more user-selected search functions to output a second group of documents, wherein the second group of documents is a subset of the first group of documents; initiating computerized analysis of a third group of documents according to one or more analytical functions to output a fourth group of documents, wherein the fourth group of documents is a subset of the third group of documents; and initiating a selective iteration at least one of the searching step and the analyzing step, wherein each iteration of the searching step or the analyzing step is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration; wherein said selective iteration includes: initiating an additional iteration of the searching step using as input the second group of documents, to output a fifth group of documents, wherein the fifth group of documents is a subset of the second group of documents; and initiating an additional iteration of the analyzing step using as input the fourth group of documents, to output a sixth group of documents, wherein the sixth group of documents is a subset of the fourth group of documents.

Independent claims 91 and 92 are patentable over Unger and Krellenstein because, as discussed above with regards to similar features recited in claims 21 and 35, the applied references, taken singly, or in the allegedly obvious combination, fail to teach

selectively performing an additional iteration of the searching using the fourth group of documents as input, to output a fifth group of documents. The applied Unger and Krellenstein references do not teach or suggest at least the above-noted features of claim 91 relating to a means for performing an iteration of analyzing a group of documents as input, to output a group of documents, wherein the output group of documents are a subset of the input group of documents. Similarly, the applied references fail to teach or suggest the above-noted features of claim 92 relating to initiating an iteration of analyzing a group of documents as input, to output a group of documents, wherein the output group of documents are a subset of the input group of documents. Thus Unger and Krellenstein, alone or in the allegedly obvious combination, lack the features recited in claims 91 and 92.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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